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Journal of the
**CALIFORNIA HISTORICAL
RADIO SOCIETY**



The Radio Historian

'Doc' Herrold's Radio Broadcast Studio in 1912 in Color

FOR THE RESTORATION AND PRESERVATION OF EARLY RADIO



FROM THE BIRTHPLACE OF BROADCASTING
CALIFORNIA HISTORICAL RADIO SOCIETY
HOME OF THE BAY AREA RADIO MUSEUM & HALL OF FAME

The California Historical Radio Society (CHRS) is a non-profit educational corporation chartered in the State of California. Formed in 1974, CHRS promotes the restoration and preservation of early radio and broadcasting. Our goal is to enable the exchange of information on the history of radio, particularly in the West, with emphasis on collecting, preserving, and displaying early equipment, literature, and programs. Yearly membership is \$30 (\$40 non-USA).

CHRS Museum in Alameda

CHRS has been fortunate, through the generosity of its donors, to purchase a home for the CHRS museum and education center. It is located at 2152 Central Avenue. The building was built in 1900 as a telephone exchange.

CHRS volunteers are actively restoring the building to make it optimal for use. Our goal is to create an environment to share our knowledge and love of radio and enable us to create an appreciation and understanding for a new generation of antique radio collectors and historians.

Please come visit us any Saturday 9am to 3pm. Visitors and groups welcome at other times by appointment; Contact Steve Kushman.



Contact us:

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or info@californiahistoricalradio.com

Visit us at: www.CaliforniaHistoricalRadio.com

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Lunch crew: Cynthia Edwards, Denny Monticelli, Keith Scott, Judy Mears, Betty Cosmos,

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colorized by John Schneider.

From the Editor

In this journal, Steve Kushman gives us an update, Chairman Mike Adams presents an upcoming museum exhibit of large historic early radio images that have been colorized by John Schneider. Then CVC’s John Wallen follows with a chapter update. Bart Lee gives a perspective of two ladies in early radio. John Okolowicz tells us about the relationship between radio and cigarette lighters, John Staples summarizes his assessment of hardware to optimize the Zoom experience, and Stephen Barncard takes us on his adventure to acquire a Gates console - the console he later donated to CHRS and is currently featured in the Studio exhibit. I wish to thank all the authors for their articles, support, and scholarly contributions.

I am always in need of quality content related to broadcast radio, ham radio, and television. If you have something to contribute, I urge you to let me know. I am especially interested in technical content. It can be of two types, a narrow topic in depth or a more broad topic with less depth. Enjoy . . .

Richard Watts, jrchrs@comcast.net



From The President

by Steve Kushman

It's been a year since Radio Central has been 'open'. Yes, there have been a few of us spending time there and making improvements. But for the most part it has been a quiet place. We have made pretty good progress considering the number of volunteer hours has dropped dramatically. We have added new flooring to our main stairway. Don Armfield has done the trim work on the new stairs. We have done much re-organization within the CHRS collection and the many items destined for our surplus sales. In the last year we have opened and filed away about 60 boxes of stuff still packed away from the KRE move.

Gilles Vrignaud has been coming by to work on organizing our collection of about 20,000 vacuum tubes! We have so many tubes, we will be making up boxes of useful tubes to be given away to our paid up members. Jim Fink has been coming on a regular basis to work on projects in the radio shop. Jim has been safety testing the radios we have restored, that will be used as premiums for donations. And speaking of restoring radios, to be awarded for donations, Seth Arp has been keeping very busy. In the last year, Seth has restored almost 250 radios for CHRS! Most of these radios were destined for landfill but were saved and resurrected by Seth. He picks up a bunch from Radio Central and works on them in his home shop. They are electronically and cosmetically reconditioned and most are now equipped to accept Bluetooth.

Keith Scott has been doing a great job of keeping the oak tree leaves under control and has the patience required for electronic parts and hardware sorting. And we have lots of parts and hardware. Steve Garaventa has been testing and sorting the hundreds of speakers we have. The smaller ones are being moved from compact mobile storage into filing cabinets in our utility room. Paul and Edith Bourbin, the creators of our xeriscaped front garden, come by every few weeks to weed and feed and trim to keep it looking good. Vern Haik, who lives near Radio Central, moves our trash and re-cycling bins out for pick up every week. He also keeps an eye on RC and waters our front garden. Also keeping eyes on RC are two new cameras added to our video security system by John Stuart. One shows the BARHOF gallery and control room and the other view is over our front door and shows anyone approaching the building. This gives us 10 cameras and great vistas of all parts of RC. John has also been pulling wires for the new building PA system.

Becoming a real museum requires a database of our artifacts. We have been collecting museum quality gear for 17 years and are long overdue to inventory it. Our Collection Management Team of Walt Hayden and Cynthia Edwards have developed our database using "Catalogit". This is a program that is the standard database for many museums. Walt and Cynthia, along with help from Betty Cosmos, Jim Fink, Len Shapiro and Cliff Farwell have had a couple of sessions at RC and have cataloged about 200 items. It's a time consuming, exacting process that will continue for a long time. Eventually, the entire CHRS collection will be on line and available for viewing. Please stay tuned.

One of the projects that has been finished during this crazy time is one we are very proud of. Our late 1950s radio control room & Audio Transfer Service, (ATS), is up and running thanks to John Stuart and John Staples. John Staples designed and wired, with help of Jim Fink, the radio control room portion. John Stuart designed and wired the ATS. This project is the 3rd working technical area at Radio Central. It joins our ham station, W6CF, and our vintage television display gallery as fully functioning facilities. It's amazing to think that about 18 months ago this control room was used for storage and now it is complete and fully operational.

The control room functions as a fully operating mono radio control center. It features a Shure 55S microphone, Western Union self-synchronizing clock, dual mono Gates Dualux control console, 2 RCA 70-C transcription turntables, one with an added Gray tone arm for mono microgroove 33s, 2 ITC cart machines, refurbished and donated by Dan Healy, and an Ampex 354 Reel to Reel tape recorder. Plus, a Collins transmitter that simulates operating functions using LEDs and all the radio station support gear including the Kaar Electronics, (Palo Alto), Conelrad Alert device.

The ATS allows us to digitize the following formats: 16" electrical transcriptions, 78 records, 45s, 33s, 1/4" R to R tape, 16" R to R logger tapes, cassette tape, DATs, broadcast cartridges and wire recordings. We will be offering this service to the public. This also allows David Vasquez, our ET digitization expert to start posting digitized audio as part of our ET Archive Project.

CHRS has GREAT volunteers! Dedicated, smart, passionate and talented people comprise this group who have weathered the pandemic and contributed so much to CHRS and the Radio Central Museum. We can't say Thank You enough to these wonderful people. Now we are slowly opening up to have our very popular volunteer Saturdays back. Only a few people at first and everyone who volunteers should check in by email. Please see the details in our weekly CHRS Newsletter, "Listening In."

Let's make 2021 a great year for CHRS. Please don't hesitate to call or email me with any questions or comments. Call (415) 203-2747 or email Steve@chrsradio.com. Keep Well & Best Regards, Steve

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From The Chairman

by Mike Adams

Though we are closed to the public our board continues to plan and explore the how to serve our members, the community, really the Bay Area, and all of California. We see ourselves as a multi purpose radio history organization beginning with a communications museum designed to support and excite students and teachers of science through field trips with informed docents. For our serious and loyal radio historian and hobbyist base we will offer in depth presentations, exhibits of radios and radio science, and of course events and meets when we are again open to the public. We have an amateur radio station, W6CF, and a repair shop, long our most used facility. Are we all things Radio? Yes. Are we proud of it? Yes we are.

One planning effort is how best to use our main exhibit area, the so-called Great Room. We strive to have our Great Room make an impactful first impression and invite visitors and members to engage.

One exhibit will be the John Schneider Exhibit For the Great Room. CHRS History Fellow John Schneider has seen the past and it is in color. The premiere Bay Area radio historian is a graduate of San Francisco State University where he received his degree with a culminating research project of Bay Area Radio history. You might say John wrote the book on this history -- it appears on his web site, and a book of radio history from Arcadia Press in their Images of America series. His original collection including his yearly wall calendars can be found on the www.theradiohistorian.org John is also a CHRS History Fellow and continues to write for the CHRS Journal and provide talks on the scope of our local broadcast history. After a long career in broadcast equipment sales, John has retired to devote a life to our Bay Area radio past.

John has done what no mortal has ever done and that is painstakingly colorize a large photo collection of Bay Area broadcasting. Seen on the front cover is the famous 1912 Herrold broadcast which until now has always been black and white. Why you ask? Mostly because it was less expensive than color, and could quickly be done in a darkroom by an individual of little skill. And even if color was just as quick, just as cheap as black and white, who would use it? Newspapers wanted black and white as did most magazines. And there was no Photoshop, so hand coloring, even tinting, was not easy. Color was reserved for a special front page or a Sunday supplement or monthly magazine. To colorize (then called hand tinting) to the size needed for publication or display, you needed to start with a high-resolution image, at least 600dpi, usually easier because many of the original black and whites were shot on 4 by 5" Speed Graphic cameras (think newspaper). Just to compare, for print publication you need 300dpi and for the Web at least 72dpi.

John's first color release formed the visual background for an exhibit at the San Francisco (SFO) Airport Museum that told the story of Bay Area radio. Now this entire collection of very large colorized photos is a part of the CHRS Museum collection, generously donated to us by the SFO Museum. We thank them. What John has accomplished is not simple: Many can colorize, but John has the knowledge of what the individual parts of radio actually looked like, so his colorization is dead-on accurate, and that is what makes it significant. The colors of each coil, each microphone, each earphone match those items in the CHRS pieces. John's color images were then enlarged by SFO and when the exhibit had ended SFO donated the large blow-ups to CHRS for display in our museum. We thank this important regional museum for their generosity.

Let us take it one step further: From the collection we are creating an interactive exhibit that shows John at work colorizing the Herrold famous 1912 "Broadcast." He narrates: how he selects colors for components, how he uses layers, how to make a poster size version, about resolution, etc. It is our plan to eventually build an educational exhibit which may be completed in the next year. We begin with the largest practical image of the Herrold so-called "Arc-Fone" transmitter. We'll select and number five to ten key pieces on the large image. and on an accompanying panel these elements are described and a few lines of text or audio narration explain how each piece contributes to the radio "broadcast" using the Herrold now obsolete arc transmitter. Two pieces of "proof" of the significance of this activity, the 1910 Gernsback Electro-Importing catalogue, and the 1912 San Jose Herald are also displayed.

Another image he has colorized is shown on the rear cover. It is the Audio Control Panel at KPO in San Francisco circa 1923. This exhibit can be put on the web. This can be done concurrently with our remodel of the main gallery. So here is a beginning of the content construction for our educational communications museum, this one an important early link to local broadcasting. John has prepared a video demonstration of his colorization procedure which can be seen on YouTube at <https://www.youtube.com/watch?v=fsZd-fw09EI> . ◇

CHRS Central Valley Chapter News

by Michael Loper

Chapter activity has been minimal due to the pandemic. There are currently no in-person membership meetings or activities. Membership meetings are now via Zoom.

Mick Daniels, who was recently elected Chairman of the chapter, has had to step down to attend to family health needs. Vice Chairman John Wallin has assumed leadership responsibilities for the chapter.

To clear out the clubhouse and keep chapter members busy and engaged in radio restoration, in January the CVC Chapter offered about 70 excess radios in sore need of repair to chapter members for free or a modest donation. Now we have room in the clubhouse to resume our Wednesday evening workshops as soon as the pandemic allows.

For an update on all our activities, visit CVC at www.cvantiqueradio.com.



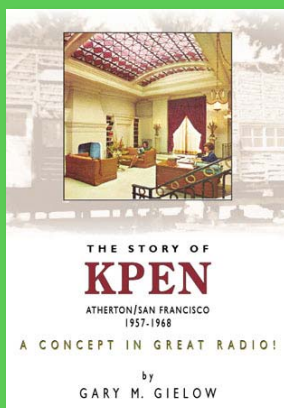
All is quiet at the CVC Chapter clubhouse during the pandemic.

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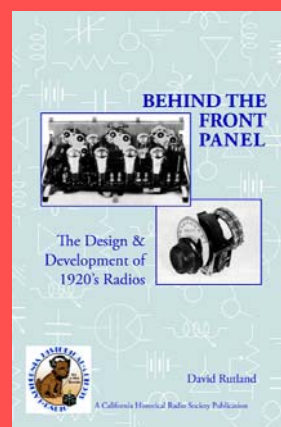
CHRS Publications

The Story of KPEN: A Concept in Great Radio! Gary Gielow has written a book chronicling the tales of two young men from Stanford, he and James Gabbert, who brought Stereo and new ideas to the FM radio band in the late 1950s and 1960s. This book is the definitive history of KPEN 101.3 FM, the 2015 BARHOF Legendary Station. 100% of the proceeds benefit CHRS.

Available in the Museum Store or on the website.

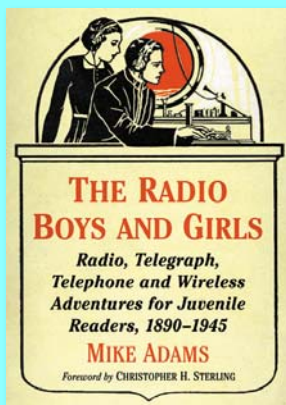


Behind the Front Panel: The Design and Development of 1920's Radio by David Rutland has been remastered by Richard Watts for CHRS. With emphasis on radio technology, Rutland describes the development of 1920s tubes and radio circuitry designs by De Forest, Marconi, and other inventors and manufacturers. A classic! Buy at Amazon.com



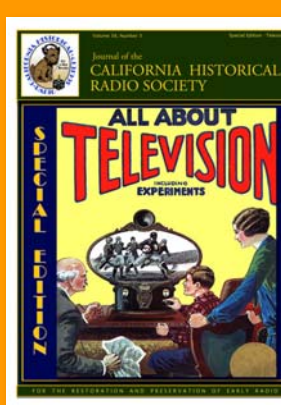
The Radio Boys And Girls—Radio, Telegraph, Telephone and Wireless Adventures for Juvenile Readers 1890-1945 covers more than 50 volumes of wireless and radio themed fiction, offering a unique perspective on the world presented to young readers of the day. The values, attitudes, culture and technology of a century ago are discussed.

Available at Amazon.com



CHRS Journal Special Edition — Television a compilation of original articles on television, including articles by Malcolm Baird on his famous father, British television pioneer-inventor, John Logie Baird, Don Godfrey's historical bios on CF Jenkins and Philo Farnsworth, plus restoration and technical articles from CHRS members

Available at Amazon.com



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Kathleen Parkin, “The Wireless Girl,” San Rafael (1900 - 1990)

By Bart Lee, K6VK, CHRS, AWA Fellow

The Wireless Telegraphy Cover-Girl of 1916: One of a very few young women interested in wireless a century ago, Ms. Kathleen Parkin of San Rafael appeared as the cover-girl of the *Electrical Experimenter*. She held both a commercial and an amateur license at 16 years of age.

In April 1916, the *San Francisco Chronicle* reported:

Girl 15 Years Old Gets Radio License
Gladys Parkin Receives High Rating

San Rafael Miss Says She May Go to Sea
With Brother, Who Is an Operator

Gladys Kathleen Parkin, 15 years old, yesterday won a first-grade commercial radio license, entitling her to operate any grade of wireless station and to secure employment on vessels.

Miss Parkin is the youngest successful girl applicant for a radio license ever examined by the government. She passed with a mark of 80 in an examination conducted by Assistant Radio Inspector E.W. Stone.

Since she was 9 years old Miss Parkin explained yesterday, she has been interested in wireless telegraphy, and for six years she has operated with her brother, John Parkin, an amateur wireless station at her home in San Rafael. Miss Parkin excelled her brother, who also took an examination before Inspector Stone yesterday, in code interpretation, but Parkin secured a higher marking because of more experience.

“I’ve had an amateur’s license,” said Miss Parkin, a dainty blond, “for a long time, and decided I should join the professional ranks, in name at least. I took the examination just for fun and to see whether I could pass or not. It was easy — no trouble at all, but then you see I have been operating an amateur station for all of six years. Maybe if brother goes to sea as a wireless operator I can go as his assistant.”

Young Parkin is a manufacturer of wireless instruments as well as an operator. Miss Parkin is the third woman to have successfully passed an examination for a first-class license. ¹ [End]



Cover of a 1916 issue of *The Electrical Experimenter* featuring Miss Kathleen Parkin.

The photograph shown right accompanied the story.

Her amateur radio callsign was 6GK ², then 6SO ³. The *Electrical Experimenter* photograph on which the cover is based is shown lower right.

Some years back, I noted in the *AWA Review*: ⁴

“In October 1916, the *Electrical Experimenter* magazine featured a young woman wireless operator on its cover in full color. The magazine declared Miss Kathleen Parkin of San Rafael, California to be an “Expert Radio Operator at Fifteen Years of Age.” She held a First Grade Commercial license and a callsign 6SO.[⁵] She made all of her own instruments including her 1/4 kilowatt spark transmitter.”

An excerpt from *The Electrical Experimenter* article⁶ “The Feminine Wireless Amateur” follows:

JUST because a man, Signor Guglielmo Marconi by name, invented commercial wireless telegraphy does not mean for a moment that the fair sex cannot master its mysteries. To prove that the girls and women of the country are rapidly awakening to the fact that radio operating is a worth-while accomplishment, both vocationally and intellectually, we have the pleasure of presenting herewith a number of photographs showing the Radio activities of our fairer sex.

First we wish to introduce Miss Kathleen Parkin of San Rafael, California, who, though only fifteen, is an expert radio operator and mechanic, and one of the youngest, fully qualified ladies we have had the pleasure of reporting. We felt so enthusiastic over the sentiments set forth in Miss Parkin’s interesting communications on the subject that we had our artist reproduce her ladyship at the key, in full colors for our front cover. The original photograph is reproduced on this page. She recently received a first grade commercial radio operator's license from the United States Government. Her call is 6SO and Miss Parkin says she will be pleased to communicate with any amateur within range. Here is the chance for budding Radio Don Juans to kill a rainy evening, without even getting their feet wet. Bashful amateurs, please take notice!

Miss Parkin writes logically, although she is young in years, to wit:

With reference to my ideas about the wireless profession as a vocation or worthwhile hobby for women, I think wireless telegraphy is a most fascinating study, and one which could very easily be taken up by girls, as it is a great deal more interesting



San Francisco Chronicle (as published) Photograph, 1916.



Allow Us to Present Miss Kathleen Parkin, Expert Radio Operator at Fifteen Years of Age. She has made her own apparatus.

The Electrical Experimenter photograph on which the Wireless Telegrapher cover is based.

than the telephone and telegraph work, in which so many girls are now employed. I am only fifteen, and I learned the code several years ago, by practising a few minutes each day on a buzzer. I studied a good deal and I found it quite easy to obtain my first grade commercial government license, last April.

It seems to me that everyone should at least know the code, as cases might easily arise of a ship in distress, where the operators might be incapacitated, and a knowledge of the code might be the means of saving the ship and the lives of the passengers. But the interest in wireless does not end in the knowledge of the code.

You can gradually learn to make all your own instruments, as I have done with my ¼ kilowatt set.

There is always more ahead of you, as wireless telegraphy is still in its infancy.

Miss Parkin is beginning her third year of high school at the Dominican College, San Rafael, where a small wireless set has been installed for the instruction of the physics class. ***[7]

Miss Parkin now has a Wikipedia entry.⁸ The wiki notes:

Parkin was born in Bolinas, California, at the Flagstaff Hotel owned by her parents, John Parkin and Hannah Marie Bennett Parkin. The family relocated to San Rafael, California before the 1906 San Francisco earthquake destroyed the property.[⁹]

Parkin became interested in wireless telegraphy at age 5, and operated an amateur wireless station in her home in San Rafael for six years with her brother, John Parkin. Theirs was one of the first wireless stations in California.

On April 13, 1916, while a fifteen-year-old high school student at the Dominican College in San Rafael, she obtained a first-class commercial radio operator's license from the United States Government with the call sign 6SO.[¹⁰]***

She was the third woman to successfully pass the examination for a first-class radio license, and the first woman in California.

Parkin designed all her own instruments, including a ¼ kilowatt spark-gap transmitter. ***

The wiki continues:

“She continued her career working with her brothers, John [Jack] and Richard, in the family radio business, Parkin Manufacturing Company, manufacturing and operating wireless instruments in San Rafael, California. By the age of 25, she was known by virtually every amateur radio-fan in her district,[¹¹] as she kept up an active interest in radio development and its future possibilities. [Wiki footnotes omitted].

In her later oral history interview, she recalled:

“Oh, I used to help Jack with his instruments. When we came here [San Rafael] I was nine, I think it was and Jack would always be making something up there and so I used to go up and help him you know. We'd put up his aerials and he had one antenna, believe it or not, from the tree in our garden right across Terradillo [street], right down to a tree on Grand Avenue, over the telephone poles over the PG&E wires; nobody even asked permission.”¹²

As of 1916, John Parkin's amateur radio callsign was 6LX.¹³ She also recalled the construction of her own station 6EK: her brother Jack and she wound nine miles of wire through paraffin for the inductance in her station, as measured by a coil-winding device. She also added that Jack and some of his friends encouraged her to try for the commercial license.¹⁴ (Jack was eight years older than she).

The *San Francisco Chronicle* noted her accomplishments twice, on April 14, 1916 (above) and also on March 25, 1922.¹⁵ The Parkin Manufacturing Company made crystal sets (one of which CHRS has), many other products, and eventually vacuum tube radios.¹⁶

The *Radio Dealer* in 1922 noted the company's early activities. This article tells of the company's expansion with the national Radio Fad, and of its clever products:

September, 1922

A Song Well Sung

Parkin Advertises Good Times and Also Acts

By L. N. Allen

In a recent letter sent out to the trade the Parkin Manufacturing Company of San Rafael, California, strikes the key note of the tune that should be a best seller the year round. The popular song is named "Optimism" both in word and deed. The Parkin company have expressed the 'word' in its letter and the 'deed' has been carried through in the recent enlargement of the San Rafael factory and the running of three shifts in order to get a big stock to fill the fall demand. The company is preparing for what it tells the radio industry in its letter is to be "a bigger boom than ever [that] will start in September." A line like that sent out by every one in the radio field to their respective correspondents would result in a boom that would make the 'klondike' a thing to be forgotten.

The Parkin company is also backing up its opinion with an advertising campaign, another way of saying "We'll bet we're right."

In its recent catalog the Parkin company also shows its keen regard for the "Purchaser." A careful reading of the few paragraphs addressed to that worthy personage will prove that the company was not a birth of the last few months and bears out the fact that it has profited by its years of experience in the radio field.

Among the products of the Parkin company is a new type of dial rheostat (patent pending) known as the Parkin Dial Type Rheostat that carries the resistance element in a groove in the back of a three-inch molded bakelite dial, a construction that eliminates much material in construction and thereby lowers the cost. The Parkin Knob Type Rheostat (patented) is somewhat similar in principle of construction to the dial type. The resistance element is directly back of the knob, the variable resistance being made by a stationary spring brass contact. Another product is the Parkin variable condenser (patent pending) that employs the use of mercury, mica, bakelite and tin foil in its construction.¹⁷
[End]

Parkin soon offered a catalog.¹⁸ Its dials and rheostats found a market. Catalog shown upper right.

After crystal sets, Parkin offered an elegant and compact Audion vacuum tube triode detector and regeneration module in 1920 for both tubular¹⁹ and "VT" triodes; it was 5" by 9" shown lower right.



Parkin Guide and Catalog. The cover features Mt. Tamalpais, "The Peak of Perfection."

AT LAST A HIGH GRADE BAKELITE
AUDION PANEL FOR
\$10

Size 6 1/2 x 9 - Pressed in lettering white filled. Metal parts nickel plated and highly polished. Molded bakelite knobs for switch and rheostat.

No. 30 Parkin Audion Panel for tubular bulbs..... \$10.00
No. 31 Panel for both Tubular and V.T. bulbs..... \$11.00

Write for Circular of our Apparatus
Dealers - Write for Proposition

PARKIN MFG. CO., - **Grand Ave., SAN RAFAEL, CALIF**

When writing to Advertisers please mention this Magazine

The Parkin compact Audion triode detector and regeneration module.

This advertisement urges readers to write for a “Circular of our Apparatus” and urges “Dealers” to “Write for Proposition.” The company appeared in the 1924 *Radio Trade Directory* and the 1926 *Radio Trade Catalog*, for its vacuum tube sets.

In 1976, a Marin County old-timer and radio collector, Joe Horvath,²⁰ wrote an article about Parkin for the *CHRS Official Journal* (upper right).²¹

Joe Horvath had known John Parkin personally. Horvath wrote (to summarize):

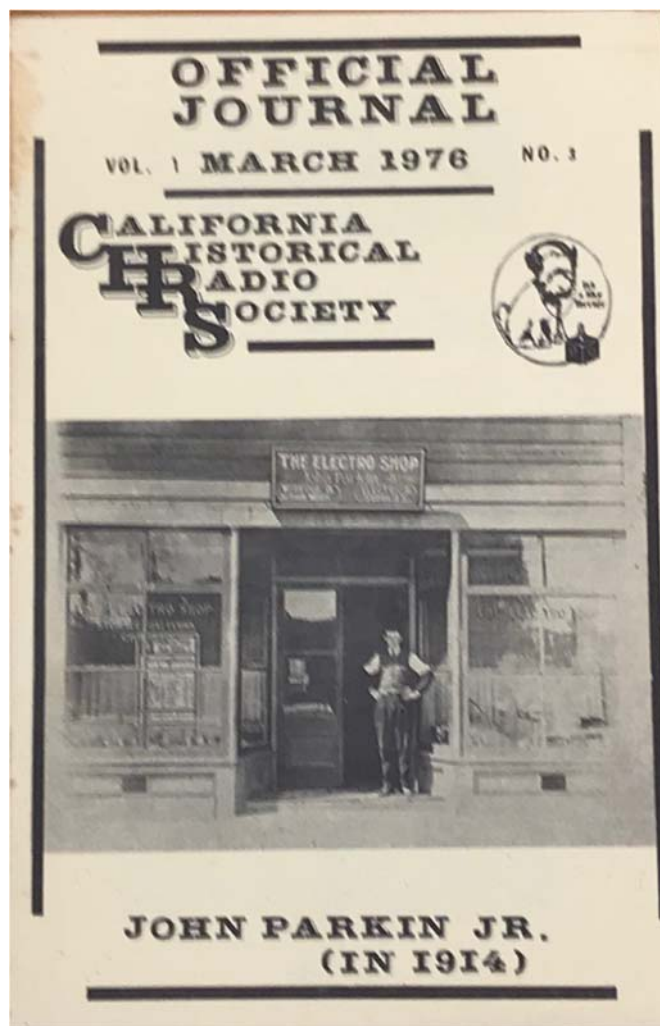
John (Jack) served in the signal Corps in World War One, then worked for George Haller and Elmer Cunningham [who made marine wireless equipment]. John Parkin first sold a miniature telegraph sounder. At Parkin Manufacturing, by 1920 they were making over 45 products, many of bakelite and operating 24 hours a day with 20 employees. Parkin made radios into the 1920s, but it ceased manufacturing in 1926. It stayed in the radio business as a retailer for several years.

Kathleen Parkin lived to 1990, age 89. She has been referred to as “The Angel of San Rafael.”²² The photograph of Kathleen Parkin below dates from 1977.²³

The early service-mark shown lower right, *viz* ‘The Peak of Perfection’ became the trade-mark or service-mark for the later receivers.²⁴



Kathleen Parkin in 1977.



The CHRS Journal issue featuring Joe Horvath's article about Parkin.



“Mt Tamalpais, California, whose rugged slope and lofty summit are plainly visible from the place where Parkin Parts are made”



Parkin Peak of Perfection radio. From: www.Radiomuseum.org; this is the (one-tube) 1924 model, the first of three: 1924, 1925 and 1926.

Lady Radio-Telegraphers

Other young women in California are reported to have operated wireless stations in the early days. Mrs. M.J. Glass of San Jose is said to have operated as station FNFN in 1910.²⁵ (The callsign “FN” was that of Charles D. “Doc” Herrold’s “San Jose Calling”; Doc Herrold’s wife Sybil was the first “disk jockey” playing records on the air about 1912.)²⁶ Another was P. L. Baker (1912, Los Angeles) with a Commercial License,²⁷ and Isabel Kelso of Seattle also held an early Commercial License, as did some young women in the East, *e.g.* Maybel Kelso (1912 – Certificate), preceded by women wireless operators before the 1911-’12 licensing requirements:²⁸ Anna Nevins (1906 – United Wireless), Graynella Packer (1910 – SS *Mohawk*), Edith Coombs, (1911- SS *Roanoke*)²⁹; later, Lena Michelsen (1918- SS *Tamesi*, an SOS).³⁰

The notion of the lady radiotelegrapher entered the popular imagination and not just by print media. The movies caught the attention of many people not given much to reading. A couple of stock photographs that seem to be movie stills follow.³¹ Noting is known about them; they have to speak for themselves.



The props include on the left an induction coil and in front of it a spark gap and to the left of that, a condenser for headphones. The large box may be meant to be a switched capacitor for a transmitter. The microphone or telephone is of an odd configuration. The lady works a key. Her headphones connect to a receiver with a rheostat (for filament voltage control) at its side. More headphones sit atop the receiver. A central tower guides the antenna lead.

Parkin also made small matchbox size packages of galena crystals for hobbyists (see right). These showed up at a swap-meet in the 1990s, no doubt from an estate. The coloring of the package was originally red-pink, labelled:

PARKIN MFG CO.
GRAND AVE.
SAN RAFAEL, CALIF.



Parkin galena crystals. From the author’s collection.



This lady also works a key, in a dramatic setting — wearing a wet raincoat. She is holding one headphone to her ear and paying attention. The radio (transmitter and receiver) looks commercial. The de Forest style coils in the background appear to be for regeneration control of the receiver.

At right is a cover from the February 1921 issue of QST featuring a lady wireless operator like Kathleen Parkin. Perhaps she is communicating with the young man in the picture on her operating table; perhaps for Valentine's Day.

Correspondence is invited: KV6LEE@gmail.com

73 de Bart Lee, K6VK ##

Footnotes

1. "Girl 15 Years Old Gets Radio License," *San Francisco Chronicle*, April 14, 1916, page1, Col. 6.
2. RADIO STATIONS OF THE UNITED STATES, US Department of Commerce, July 1, 1913 (Amateur Radio Stations of the United States). As of 1920, with the post war revival of amateur radio, Miss Parkin's callsign was 6BP. (Ralph Heinz succeeded to the callsign 6EK in 1924.)
3. RADIO STATIONS OF THE UNITED STATES, US Department of Commerce, July 1, 1916 (Amateur Radio Stations of the United States).
4. "6SO" was her amateur radio station and personal amateur license callsign.
5. Bart Lee, "West Coast Wireless Comes of Age," 24 *AWA Review* 241, at page 268 (2011).
6. "The Feminine Wireless Amateur," *The Electrical Experimenter*, October 1916, pages 396-397, 452. <http://earlyradiohistory.us/1916fem.htm>. In her later oral history, Miss Parkin recalled that the article or parts of it were reprinted in "the *Literary Digest*, *Popular Mechanics* and *Wireless Age* ... I got letters from all over. I've still got some." (Kathleen Parkin Interview, 1977, Marin County Free Library, Anne T. Kent California History Room Oral History Project). <http://contentdm.marinlibrary.org/digital/collection/ohp/id/1497j>. <http://contentdm.marinlibrary.org/digital/collection/ohp/id/1496>.
7. Miss Parkin graduated in 1922 and attended her 50th reunion in 1972. *Daily Independent Journal*, San Rafael, California, 22 May 22, 1972 at page 12. <https://www.newspapers.com/clip/10088143/daily-independent-journal/> (Footnote inserted).
8. https://en.wikipedia.org/wiki/Gladys_Kathleen_Parkin
9. Her personal recollection was that the Hotel fell into the Bolinas Lagoon as a result of the earthquake when she was six years old. (Kathleen Parkin Interview, (above). (Footnote inserted).
10. Note that "6SO" was her amateur radio station callsign; Commercial licenses of operators did not grant callsigns. (Footnote inserted).
11. Her amateur callsign was then 6BP, according to the RADIO STATIONS OF THE UNITED STATES, US Department of Commerce, June 1920 (Amateur Radio Stations of the United States). (Footnote inserted).
12. Kathleen Parkin Interview, (above).
13. RADIO STATIONS OF THE UNITED STATES (1916) (above).
14. Kathleen Parkin Interview, (above).
15. "Women, Girls Found Among Radio Experts: Gladys Parkin of San Rafael," *San Francisco Chronicle*, March 25, 1922. (Wiki citation; article at page 1, Col. 5).
16. According to Radiomuseum.org, a radio in 1924, 1925 and 1926 with the Peak of Perfection marque.
17. *The Radio Dealer*, Volume 1, September 1922. This lively article speaks well for the business press of the day, and for the Parkin press-release letter, perhaps written by Miss Parkin. The expansion illustrates the national Radio Fad of the day. John Parkin did the inventing. The factory ran 24 hours a day to keep the bakelite molten for its products.
18. Graphic from an advertisement in *Radio*, December 1922.
19. The San Francisco bootleg Audiotron triodes, from Elmer Cunningham, were available at the time; "V.T." was World War One nomenclature for a four-pin base triode.
20. An early CHRS Herrold Award winner.
21. *CHRS Official Journal*, March 1976, Vol. 1, No. 3, page 8 ff.
22. Memorial page for Gladys Kathleen "Kathy" Parkin (27 Sep 1900 – 3 Aug 1990), Find a Grave Memorial no. 126826304. <https://www.findagrave.com/memorial/126826304/gladys-kathleen-parkin>
23. Posted with the Kathleen Parkin Interview (above).
24. As listed by www.radiomuseum.org: its image, Parkin, "Peak of Perfection," 1924.
25. Louise R. Moreau [W3WRE], "The Feminine Touch in Telecommunications," 4 *AWA Review*, 79 at page 82 (1989).
26. Gordon Greb and Mike Adams, CHARLES HERROLD, INVENTOR OF RADIO BROADCASTING, (McFarland, 2003) at page 99. For callsign "FN" see: <http://perhamcollection.historysanjose.org/people-companies/charles-doc-herrold/>
27. See *Oakland Tribune*, Oakland, California, January 12, 1921, page 4. www.newspapers.com/newspage/82309737/
28. The Wireless Ship Act of 1910, and the Radio Act of 1912. See https://en.wikipedia.org/wiki/Wireless_Ship_Act_of_1910
29. Moreau (above).
30. SoWP.org from VWOA.
31. www.dreamstime.com/photos-images/woman-sending-morse-code-using-telegraph-52011836; www.dreamstime.com/stock-photo-woman-raincoat-sending-message-morse-code-image52004362



The Girl at Radio 6BB

By Bart Lee, K6VK, CHRS, AWA Fellow

Barbara Stoddard Burks at about 19 years of age, operated the University of California amateur radio station 6BB. She was born in 1902 but died young in 1943. Lewis Terman wrote:

The death of Barbara Stoddard Burks on May 25, 1943, at the early age of 40 years, was a truly serious loss not only to psychology but also to biology, sociology, and education. Her record for creative productivity, which has rarely been equaled by one of her years either in quantity or quality, was made possible by an extraordinary combination of intellect, energy, and scientific enthusiasm. As Dr. Florence Goodenough has expressed it in a personal letter to me, "In the short span of her life Dr. Burks' contributions would have done credit to one of double her age. Her zeal in research, her fine technical skill, and her clear insight into the basic principles underlying the problems which she set out to solve won the unqualified admiration of her colleagues both in this country and abroad." ¹

Fritz Sommer, K6EE, the trustee of W6BB, the Cal Berkeley amateur radio station, identified Barbara Burks as the girl at the 6BB operating desk. He places the photo circa 1921.

The W6BB website² says:

"1921 First commercial wireless operator's license to woman, Barbara Burks '24." ³

Federal authorities granted her this license in January 1921.

In 1971 a retiring professor wrote: ⁴

"In August of that same year [1927] Herman [Ramsperger] and Barbara Burks were married in Palo Alto, where Barbara was a student in psychology, and obtained her doctorate a year or two later. We attended their wedding..."⁵



Barbara Stoddard Burks, circa 1921 at University of California Amateur Radio Station 6BB.



Dr. Burks in her Maturity.

Dr. Burks was widowed in 1932. A decade later she planned to marry again. Her fiancé, a friend and colleague, wrote:

“During her college years she was granted a commercial radio operator's license, the first woman to receive such an appointment on the Pacific Coast. ... She even had the unusual experience of seeing the world, dressed in the gaudy attire of a Barnum & Bailey maharani, from the wobbly top of a circus elephant.”⁶

Her many biographies tell of her early life in many places including the Philippines, as the daughter of active, intellectual and peripatetic parents. Her academic work included pioneering research and publication in behavioral genetics, statistics, intelligence, heredity and genetics. Some was controversial.

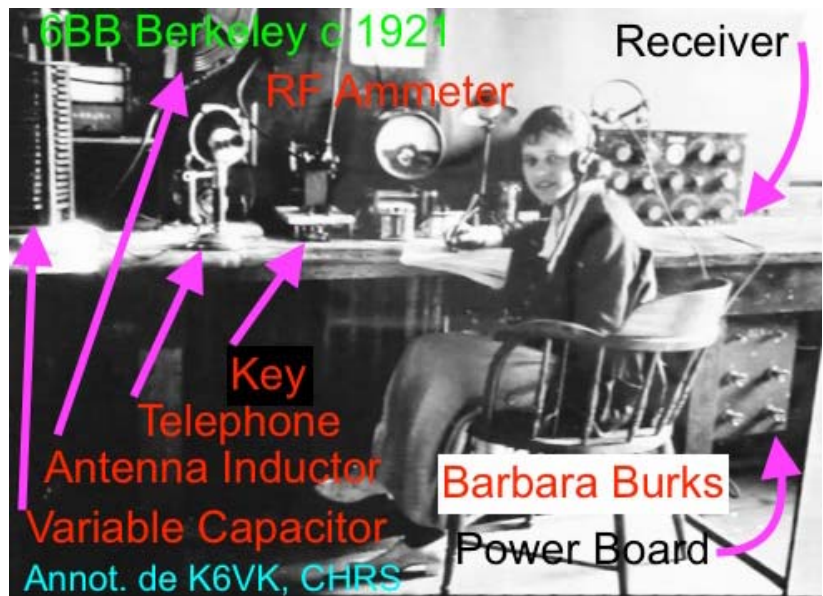
She worked in a world of sometimes unappreciative and perhaps hostile senior men.⁷ In a situational personal depression, she appears to have died by her own hand.

=====

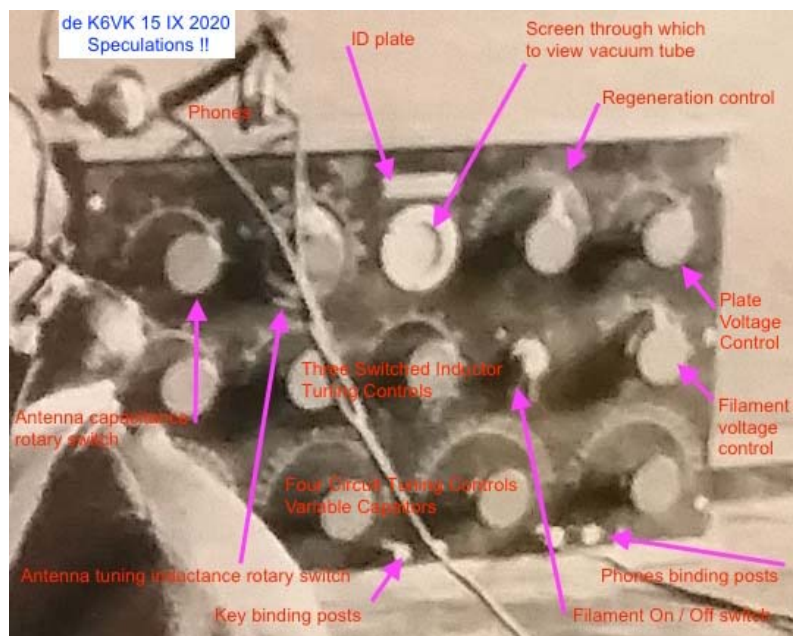
What was it that she had mastered at age 19 at radio station 6BB? We have only the one photograph, but we know that the federal government licensed her as a commercial radio operator. She had to pass muster as a radio telegraphist at likely 20 words a minute in Morse code. She also had to pass the radio theory test about radio itself, transmission modes such as spark and carrier, the appropriate equipment and engineering, and the different legal regulations for radio services.

She sits at an operating desk (shown upper right) with a state-of-the-art radio receiver at her right. To her left appear the tuning elements of a transmitter, most of which is unseen farther left. In those days amateurs could operate only above the broadcast band, at 160 meters wavelength and down, in the frequency range just below 2 MHz, and above. This apparatus seems to be in that range. Still, the Berkeley radio enthusiasts may have done some broadcasting at wavelengths longer than 200 meters (below 1500 KHz). Maybe the receiver — and transmitter — had a larger range.

The receiver offers twelve controls. One cannot be certain of the function of each control. Nonetheless educated guesses may be made (as they have in the above annotated photos). Beyond the On /Off switch, the available combinations and permutations are large. One could



Barbara Burks operating station.



Station receiver with author's annotations regarding best guess at functionality .

speculate that this radio came out of the Electrical Engineering Department. No available advertisements suggest a commercial source.⁸

The Berkeley amateur radio station helped to pioneer amateur radio on the West Coast. The W6BB history (previous page) notes:

1914 First wireless messages from government station in Arlington are received on long-wire stretching from top of unfinished Campanile to Mechanics building.

1916 First mention in Daily Cal of University Radio Society.

Club broadcasts Big Game (with Washington) from bleachers. Club enters Carnegie foundation sponsored League of University Wireless Clubs to relay news, sports, etc.

1917 Club helps government radio inspector to rid Bay Area of pesky, interfering unlicensed radio stations!

and of course, Miss Burks.⁹ There is, however, no available record of Miss Burks holding an amateur, rather than commercial license.

In 1921, Miss Burks was in good technical company at Berkeley. For a social history of what student life on campus was like, see Professor Fox's memoir (above). It was a different world – but then they always are.

Correspondence is invited: KV6LEE@gmail.com

73 de Bart Lee, K6VK ##

Footnotes

1. Emil O.W. Kirkegaard, Clear Language, Clear Mind, [blog]: *Celebrating an early female pioneer: Barbara Stoddard Burks*. She had to her credit over 80 publications. (<https://emilkirkegaard.dk/en/?p=6595>)
2. www.w6bb.org/history/
3. This somewhat telegraphic comment likely refers to Cal Berkeley students, because Kathleen Parkin of San Rafael held both commercial and amateur licenses in 1916. See https://en.wikipedia.org/wiki/Gladys_Kathleen_Parkin which notes she was the third such female licensee. Two others were P. L. Baker (1912, Los Angeles) and Isabel Kelso (Seattle). See *Oakland Tribune*, Oakland, California, January 12, 1921, page 4. (www.newspapers.com/newspage/82309737/)
4. AGAIN THE SCENE Some Informal Memoirs of my Life — by Denis L. Fox (1971 typescript at Scripps Institution, San Diego). (http://scilib.ucsd.edu/sio/biogr/Fox_Again_Scene.pdf)
5. "Burks and Ramsperger were thought to have had an idyllic marriage. He was known to have great pride in her achievements as well as always providing support and encouragement to her." So says Laura Ball in *Psychology's Feminist Voices*. (2010) at <http://www.feministvoices.com/barbara-stoddard-burks/>
6. D. Brett King et al., *Barbara Stoddard Burks: Pioneer Behavioral Geneticist and Humanitarian* (this is a chapter 15 in an unidentified book) at <https://www.gwern.net/docs/genetics/heritable/1996-king.pdf>
7. See Laura Ball (2010), *supra*, and the wiki, *supra*.
8. An archival photograph (right) from the University of California, Berkeley shows a similarly complex Navy radio, also having both a key connection and a connection for headphones, similarly situated. It appeared as Figure 1 in an unidentified book, with an ID number 1469101914325.
9. A more complete history appears at <https://www.qrz.com/W6BB> managed by K6EE, Fritz Sommer, noting: "1915: Robert J. Stull ... sets up a radio-telephone broadcasting station at University of California Berkeley."



FIGURE 1.

Footnote 8: Archival photo of a similar Navy radio.

Hey Buddy, Got a Light?

By John Okolowicz

If you are of a certain age – let's say baby boomerish – then you probably heard that quite a bit “back in the day.”

Of course that was a long gone time ago when smoking was considered to be “real cool.” Cigarettes could be found tucked behind many an ear and during the summertime some smokers kept a pack very prominently displayed in the partially rolled up sleeve of their T-shirt. Famous movie and TV actors, such as Humphrey Bogart, Lauren Bacall, and James Dean, usually were seen amidst a smokey haze with a cigarette in hand. Songs like “Smoke Gets in Your Eyes” by the Platters and “Smokey Places” by the Corsairs found their way onto Billboard's Top 40 list.

Health concerns? Forget about it! “More Doctors Smoke Camels Than Any Other Cigarette” was one long running ad campaign that slyly insinuated that smoking was almost “healthy” (Fig. 1). Competitors' ads touted similar slogans. So, we got hooked.

Cigarettes and radio became a team. Cigarette companies sponsored many radio and TV shows. Some shows even incorporated the cigarette brand into the show's name e.g. *Camel Caravan* and *Chesterfield Supper Club*.

Did you know that at one time there actually was a cigar brand called Radio Queen? It was registered as

"I'm going to grow a hundred years old!"

...and possibly she may—for the amazing strides of medical science have added years to life expectancy

It's a fact—a warm and wonderful fact—that this five-year-old child, or your own child, has a life expectancy almost a whole decade longer than was her mother's, and a good 18 to 20 years longer than that of her grandmother. Not only the expectation of a longer life, but of a life by far healthier. Thank medical science for that. Thank your doctor and thousands like him... ruling cohesively, often with little or no public recognition... that you and yours may enjoy a longer, better life.

According to a recent Nationwide survey:
More Doctors smoke Camels
than any other cigarette!

NOT ONE, but three outstanding independent research organizations conducted this survey. And they asked not just a few thousand, but 113,397, doctors from coast to coast to name the cigarette they themselves preferred to smoke. The answers came in by the thousands... from general physicians, diagnosticians, surgeons—yes, and nose and throat specialists too. The most-named brand was Camel.

If you are not now smoking Camels, try them. Compare them critically. See how the full, rich flavor of Camel's costlier tobaccos suits your taste. See how the cool mildness of a Camel suits your throat. Let your "T-Zone" tell you (see right).

CAMELS Costlier Tobaccos

Camels Cigarettes, 1946

THE "T-ZONE" TEST WILL TELL YOU

The "T-Zone"—T for taste and T for throat—is your own proving ground for any cigarette. Only your taste and throat can decide which cigarette suits best. To test... has it affects your throat. On the basis of the experience of thousands of doctors smoking, we believe Camels will suit your "T-Zone" to a T.

Fig. 1: Camels cigarette ad from *Good Housekeeping*, July 1946.



Fig. 2: Radio Queen cigar label circa 1924.

a brand name with the U.S. patent office in 1924 by P. & J. Sanzone and V. Di Leo. Who these people were is a mystery and advertisements for Radio Queen cigars are impossible to find. However, the beautiful cigar label (Fig. 2) they designed, featuring a woman who looked more like a Tarot card reading Psychic than a radio operator, makes for an interesting piece of art. Reproductions of it have been spotted at the Kutztown, PA Radio Extravaganza being sold for about \$10, or from Amazon for \$49 plus another \$5 for shipping.

But this is not going to be a story about old time radio or TV shows or cigars. Instead, I want to highlight tangible products created by and resulting from the close relationship between radio and tobacco.



Fig. 3: Three views of the Mullard tube cigarette lighter.



Fig. 4: Metal tube lighter excerpt from the November 1936 issue of RCA Radio Service News .

For starters let's go back twelve years ago when I first saw a crazy cigarette lighter (Fig. 3) in the shape of a Mullard radio tube (or is it "valve"?), for sale on Ebay and I impulsively bought it. It was much too unusual to pass up. Measuring about 2-1/4" tall, it is much smaller than typical Mullard tube. Steve Myciunka has a web site dedicated to all things Mullard (mullard.org) where he has posted pictures of this same lighter. Here is what he has to say about it: ". . . in over 25 years of collecting vintage radio items, I have never seen another one of these." He also helpfully points out that it was made by the Beney Company in the UK, noting that Beney's corporate insignia is stamped on the strike wheel. It turns out that back then companies commonly handed out cigarette lighters, stamped with their logos, as advertising gimmicks just as they do today with ball point pens.

A few years later, while I was leafing through some old issues of the *RCA Radio Service News*, an in-house publication for RCA radio dealers, I spied a small blurb about a cigarette lighter (Fig. 4) that was made to look like one of their 6K7 (or 6L7) style metal tubes (Fig. 5). It was offered as a free dealer give-away to purchasers of RCA's tubes. Although the operational metal tubes were manufactured by General Electric, RCA eagerly promoted their use to differentiate themselves from the competition. Obviously, RCA did not make this lighter, but if you look very closely at the picture, you can just make out the name Allbright Company.

These unique RCA (or Mullard) lighters do not even appear in books dedicated to the subject. Of the three books dedicated to the cigarette lighter hobby [see References 1, 2, 3], none make any reference to the RCA tube lighter. The pictures of the lighter shown in Figure 4 were copied from a web site (http://66.39.102.36/Promo_pages/rca_lighters.htm) several months ago, and today, even though the web page is still accessible, the pictures are not. They have vanished.



Fig. 5: RCA metal lighter from the internet.

Sometime in the 1950s, RCA handed out a different promo lighter that replicated the shape of a microphone of that era (Fig. 6) in miniature. A picture of this can only be found today on Pinterest.

Cigarette lighter reference books only seem to acknowledge the stereotypical Zippo (or Ronson) versions with a red RCA logo painted on the sides. On the other hand, pictures of promo novelty lighters made in the shape of miniature Coca Cola and Pepsi Cola bottles can be found in all three of them.

Japanese companies were known to make unusual novelty lighters. After the war, they briefly became known for producing cheap touristy tchotchkes, nonetheless some of them were actually quite unusual. They were able to cleverly turn just about any design motif into a cigarette lighter. Here are some interesting examples relating to radios and TVs: 1) a console radio (Fig. 7), 2) a small 1940s type phonograph (Fig. 8), 3) a teletype key (Fig. 9), 4) a transistorized TV (Fig. 10), 4) and a table radio (Fig. 11).



Fig. 6: RCA microphone cigarette lighter from the internet.



Fig. 7: Japanese made console radio lighter from "Cigarette Lighters" by Schneider & Fishler.



Fig. 8: Japanese made phonograph lighter from "Cigarette Lighters" by Schneider & Fishler.

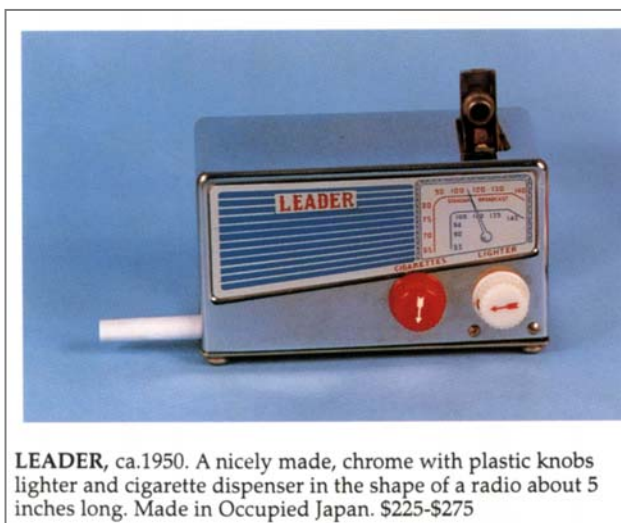


Plate 83 • Battery and butane-operated telegraph style table lighter. Made of plastic, brass, and wood from Japan. Circa mid-1950's. 3 1/4" H., 6" W. \$20.00-40.00.

Fig. 9: Japanese made telegraph key lighter from "Collector's Guide. . ." by Flanagan, p25.



Fig. 10: Japanese made Swank TV lighter, "Collector's Guide. . ." p51.



LEADER, ca.1950. A nicely made, chrome with plastic knobs lighter and cigarette dispenser in the shape of a radio about 5 inches long. Made in Occupied Japan. \$225-\$275

Fig. 11: Japanese made table model radio lighter from "Cigarette Lighters" by Schneider & Fishler.

The earliest mention of a radio electric cigarette lighter that I could find appears in the December 1924 issue of *Popular Radio* (Fig. 12). Quoting from the ad: "You are getting DX – headphones on – set adjusted just right – and you want to light your cigar, cigarette, or pipe. Don't get up for matches and spoil your fun. Don't even try to scratch a match near that delicate adjustment. Clipped to the side of your radio table is your Cuno Radio Electric Match. . . here's what the real radio fan has been waiting for – a light from his storage battery whenever he wants it without leaving his set. Because we are the largest makers of electric matches for automobiles in the world . . ."

Cuno never followed up with any other ads for their "electric match." Me thinks it never became a red hot product. But, believe it or not, the Cuno Engineering Corp. was still around in one form or another in their original Meridian, Connecticut location until 1969!

126
The Best in Radi

Light up while you Listen!



You are getting DX—headphones on—set adjusted just right—and you want to light your cigar, cigarette or pipe. Don't get up for matches and spoil your fun. Don't even try to scratch a match near that delicate adjustment. Clipped to the side of your radio table is your Cuno Radio Electric Match. Pick it up—press its button—the end glows instantly—light up—put it back. During the three seconds while you are pressing that button you are using only as much of your storage battery current as is used by one vacuum tube in that time. In a word, here's what the real radio fan has been waiting for—a light from his storage battery whenever he wants it without leaving his set. Because we are the largest makers of electric matches for automobiles in the world, we are able to sell this little specialty for **\$1.25** the absurdly low sum of. Ask your radio dealer for the Cuno Radio Electric Match with cord. If he hasn't got it, send us \$1.25 and it comes to you by return mail in attractive box. Money back without question if you are not satisfied. Order quick if you want it for Christmas. Complete your radio pleasure with



RADIO ELECTRIC MATCH

THE CUNO ENGINEERING CORP.
Meriden, Conn.

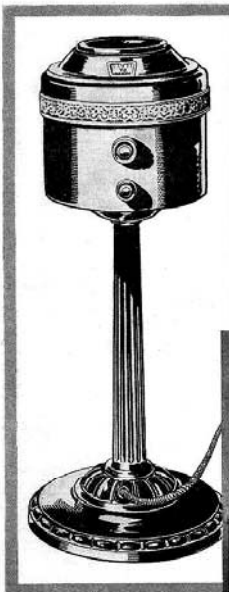
Fig. 12: Cuno Engineering Corp. ad from *Popular Radio*, December 1924.

In 1931 the General Motors Company may have created the very first ashtray radio – sort of. It was actually a super heterodyne converter model 281 (Fig. 13), not a fully functional radio, and its ashtray feature was never acknowledged in the advertisement. It was housed in a free-standing unit that had the appearance of an ashtray of that era. The purpose of the converter was to convert a TRF set into a super heterodyne radio by, presumably, attaching itself to the antenna terminal of an existing radio via the 30 foot cord. According to the ad it could be used as a "remote tuner" that could bring in "from 5 to 20 additional stations."

THE SATURDAY EVENING POST
37

NEW!

GENERAL MOTORS RADIO SUPER-HETERODYNE CONVERTER *with Remote Control*



Radio's newest and most amazing achievement is here! General Motors Radio engineers, after months of development, have perfected the G. M. R. Super-Heterodyne Converter—a remarkable device which converts a tuned radio frequency set into a very selective super-heterodyne and provides remote control over the full broadcast range. It adds two tubes to your present TRF set and brings in from 5 to 20 additional stations. The Super-Heterodyne Converter is easily and quickly connected. A 30-foot cord permits it to be placed anywhere in the room and enables you to bring in any station you desire without moving from your chair. It can also be used with modern super-heterodyne receivers as a remote control unit. Go to the nearest General Motors Radio dealer for a demonstration of this sensational new idea in radio. Learn for yourself how it adds to the convenience and enjoyment of radio reception. The new General Motors Radio Converter is only \$49.75 complete. Write for descriptive folder.




1 MAKES YOUR PRESENT TRF SET
A MODERN SUPER-HETERODYNE

2 GIVES YOU REMOTE CONTROL
OVER THE FULL BROADCAST RANGE

SEE IT . . HEAR IT . . TODAY

General Motors Radio offers 8 custom-built receivers priced from \$95 to \$350, and 2 standard receivers priced from \$59.50 to \$250. Prices include tubes. All models equipped with General Motors Improved Super-Heterodyne chassis. Small down payment. Convenient terms.

General Motors Radio Corporation
Dayton, Ohio

Fig. 13: GM radio converter (ashtray) from *Saturday Evening Post*, November 21, 1931.

Brown & Williamson (B&W), the tobacco company, also had an interesting connection to the radio industry. They started in 1894 as a partnership between George T. Brown and his brother-in-law Robert Lynn Williamson manufacturing chewing tobacco in Winston-Salem, North Carolina. They expanded into making cigarettes and in 1927 the business was sold to London-based British American Tobacco.

B&W created the Wings cigarette brand in 1929 as an economy product, so the advertising budget for Wings was deliberately kept low. In 1933, as an advertising gimmick for Wings, B&W worked with RCA to create a novelty radio in the shape of a giant Wings cigarette pack. RCA used the same chassis as in their model R-28 cathedral set with a minor modification in speaker placement. The Wings radio became model R-28-BW (Fig. 14). (No mystery as to what the BW references).

When transistors allowed shirt pocket radios to become a reality, RCA and Marlboro jointly saw a unique marketing opportunity. RCA's "Pockette" radio is featured side-by-side with Marlboro's cigarettes in a two page promotional ad (Fig. 15) in a 1960 issue of *Esquire* magazine.



Fig. 14: Wings radio, RCA model R-28-BW.



Fig. 15: *Esquire* ads for RCA and Marlboro, November 1960.

authorized by the cigarette companies or were just generic radios that used bootlegged art work.

In the mid 1990s while attending either an Elgin, Illinois radio swap meet (or maybe it was an AWA convention), I vaguely remember seeing a large size (Wings-style) 1950s-era vacuum tube version of a cigarette pack radio with a Pall-Mall (or similar) brand graphic. However, my search of the internet for such a set yielded nothing. So, this may be just a figment of my imagination, or there may actually be something out there like that, but it is even harder to find than RCA's metal tube cigarette lighter. (If anyone knows for sure, please feel free to contact the CHRS editor.)

It was only a matter of time before an enterprising Japanese manufacturer would ask "if a transistor radio can be made the size of cigarette pack, then why not complete the process and made it into a pseudo cigarette pack?" And so they did exactly that using a number of different brands for the cigarette pack graphics. Figure 16 shows a Marlboro version, but many others can be easily found such as Winston, Kent, Chesterfield. It is not known whether these radios were



Fig. 16: Marlboro transistor radio.

246 ESQUIRE

this Christmas...

USE GIFT PSYCHOLOGY
Choose either of these utterly new and masculine radio combinations



IF HE'S THE QUIET... RESERVED TYPE

Smokerette-Radio

THE ONLY COMBINATION SMOKER AND RADIO SET

His dream of the perfect Christmas gift is easy to analyze. He loves music, the classics or that with a jungle beat. And, too, he's never happier than when he's revelling in the rare, rich aroma of his favorite smoke. Reserved as he is, he'll positively rave at your gift choice of a Smokerette-Radio. He may have expected only one gift. Instead he gets two in one great combination... a combination that's as satisfying and comfortable to live with as his favorite slippers. At your dealer now.



A magnificent musical instrument. Built in smoker set has 4-pipe rack, jumbo ash tray, and spacious humidors for cigars, cigarettes and tobacco. Cabinet is one piece, molded, jet mahogany plastic. **49.95**





IF HE'S A MIXER... THE GAY TYPE

Porto-Baradio

A PORTABLE BAR AND RADIO COMBINATION

Here's your man! He'll do a jig if the rhythm's right, and laugh fit-to-bust at a comedian's pun. He loves to entertain, and spices his get-togethers with tinkling glasses of good cheer. What better gift analysis than to select for him this dream combination that serves liquor and song in the modern manner? It's got everything to provide for gracious living... with its portable bar and radio built right into the same cabinet... almost a night club in miniature for entertaining at home. He'll give you a double thanks for your thoughtfulness. See the Porto Baradio at your dealers today.

RADIOS IN BOTH ARE BY A FAMOUS MANUFACTURER

Highly selective Superheterodyne radio designed to operate on either AC or DC current, featuring 7-tube performance with 5 tubes, including two dual purpose tubes, built in loop antenna, P.M. speaker, automatic volume control and simple tuning arrangement. Carries the Porto Products warranty for exceptionally fine performance and flawless construction.



Fully equipped with 21 pieces of beautiful gold-edged glassware. Radio is protected against liquid damage. All plastic cabinet. Available in ivory with gold trim, or mahogany with ivory trim. **49.95**

ORDER DIRECT OR WRITE FOR NAME OF YOUR NEAREST DEALER

Porto-Products, Inc.
412-28 N. ORLEANS STREET, CHICAGO 10, ILLINOIS

Fig. 17: Porto Products, Inc. Smokerette & Bar radio ad from *Esquire*, December 1947.

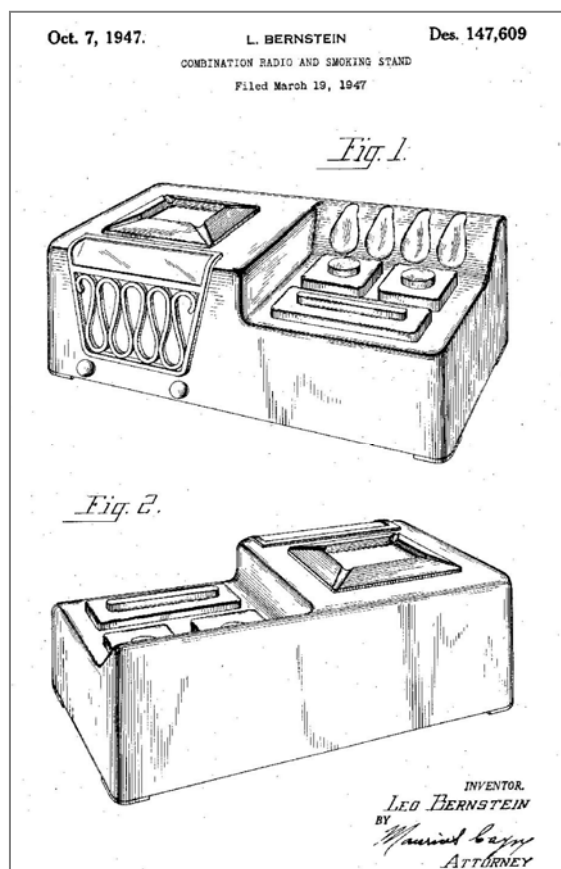


Fig. 18: Original design patent for the Porto Products, Inc. Smokerette.

Porto Products Inc. created the most ubiquitous smoker-radio, appropriately named the “smokerette.” One of their ads tried to get overly clever with the product descriptors, calling it “smokesational” and “radiolutionary.” The over-the-top terminology was explained as follows: “it takes new words to describe the amazing new smokerette-radio by Stewart Warner.” It had a 4 pipe rack, jumbo ashtray, and “spacious humidors” for cigars, cigarettes, and tobacco (Fig. 17). The original design patent, shown in Figure 18, was granted to Leo Bernstein. As can be seen from their magazine ad, the Porto people capitalized on the smokerette concept by creating a quasi-companion-styled Bar-radio.

As the smoke rings from this story slowly fade away into the sky, my friend, Google, found two more items. One is made by – you guessed it – RCA. It is model 9-XL-1F (Fig. 19 next page). This is a plastic table radio with a built-in cigarette lighter located on the top surface, which appeared around 1957-59. RCA might be the only major U.S. radio manufacturer to have produced a radio with this kind of feature. Apparently, someone in their marketing department was absolutely convinced that the general public had a burning desire for this feature. By itself, the design is totally unremarkable, but the cigarette lighter puts it in a unique category. For those who are curious how the lighter is incorporated into the circuitry, a schematic is shown in (Fig. 20).

The second one is the Peerless CATR-40, (Fig. 21) an ashtray radio with a built-in gas lighter. This one may be from the late 1960s or early 70s and in the pre-pandemic months of 2020 was being offered for sale on EBay for \$75.

◇



Fig. 19: RCA 9-XL-1F radio with cigarette lighter.



Fig. 21: Peerless CATR-40 ashtray radio.

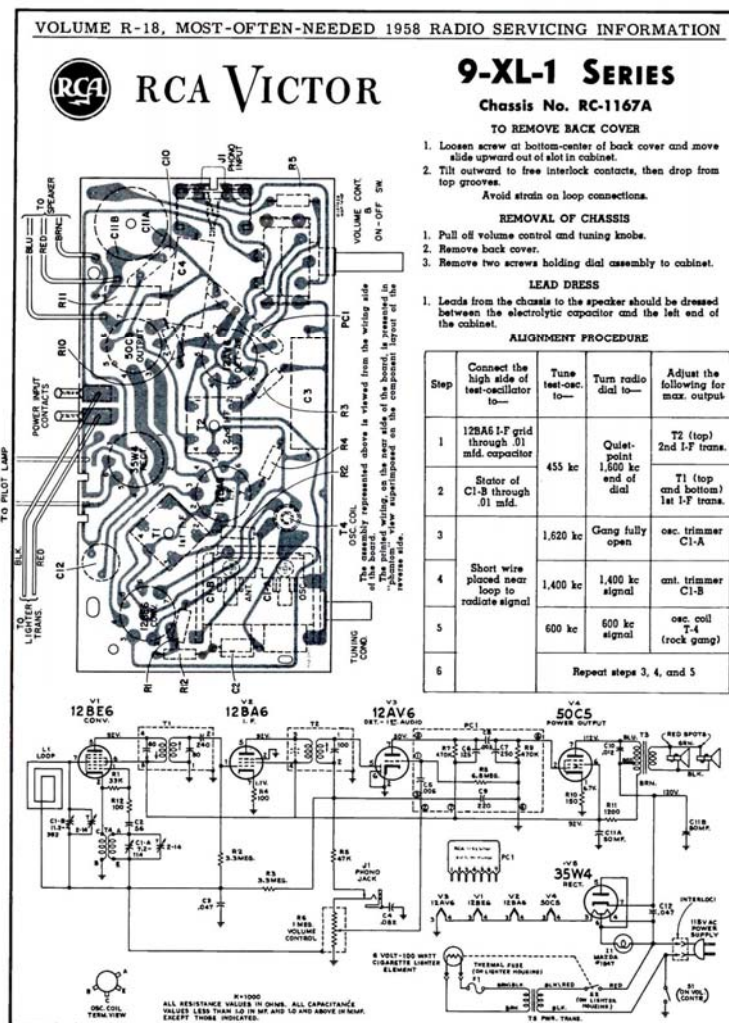


Fig. 20: Schematic of the RCA 9-XL-1F from Supreme publications. (Also found in Sams Photofacts folder 359-14).

Thankfully, for the sake of our collective health, in 1964 the US Surgeon General announced the true facts regarding the hazards of cigarette smoke and smoking has been on the decline ever since. So, that might explain why today's iPhones are not offered with an embedded cigarette lighter.

References

1. "Collector's Guide to Cigarette Lighters: Identification and Values," James Flanagan, Collector Books, 1995.
2. "Collecting Cigarette Lighters: a Price Guide," Neil S. Wood, L-W Book Sales, 1994.
3. "Cigarette Lighters," Stuart L. Schneider, Schiffer Publications, 1997.
4. Most Often Needed Radio Diagrams 1958, Vol. R-18, compiled by M. N. Beitman, Supreme Publications.

The Author

John Okolowicz is a retired Honeywell engineer after working there for 29 years and has been dabbling with radios most of his life. He is fascinated by industrial design & their designers as well as the artistry of old magazine ads as they relate to radio technology. He has had previous articles published in *the AWA's OTB*, *the AWA Review*, *Radio Age* (the Mid-Atlantic Radio Club's newsletter), *Antique Radio Classified*, *Ephemera Journal*, *Transistor Network*, and *Deco Echoes*.



Zoom Hardware

By John Staples, W6BM



Unless you are in witness protection, you should be able to look best in your zoom meetings. It’s easy and not expensive. I will review a few webcams and microphones along with suggestions of improving your zoom experience.

Webcams

Along the top of the laptop screen above are the Aluratek model AWC03F webcam, the Logitech C310, the Logitech C920 and the Unlabeled Chinese Knockoff (the UCK!) webcams. The camera in the Dell Latitude E6510 laptop lid is hidden under the foot of the Logitech C920.

All these cameras work just fine on PC platforms, where drivers may be needed, on linux platforms where drivers are not needed, and probably on Apples, but check first for compatibility.

Here is a summary of the capabilities of each webcam, including the horizontal-to-vertical size ratio and the lens geometric distortion linearity error found in two of the units.

	Aluratek	Logitech C310	Logitech C920	UCK	Laptop
Resolution	1920 x 1080	752 x 416	1920 x 1080	1920 x 1080	1024 x 768
Ratio	1.78 : 1	1.81 : 1	1.78 : 1	1.78 : 1	1.33 : 1
Angular View	90	60	78	78?	?
Focus	Manual	Fixed	Automatic	Manual	Fixed
Lens	Plastic	Plastic	Glass	Plastic	Plastic
Linearity	Barrel Distortion	Good	Good	Barrel Distortion	Good
Picture Quality	Good	Good	Best	Good	Poor
Microphone	Mono	Mono	Stereo	Mono	Mono
Price Range	\$30.00	\$50.00	\$90.00	\$30.00	-

The webcams differ in resolution, video quality, and picture aspect ratio. Most are priced in the \$30 to \$50 range, the most expensive less than \$100. All units use a USB A connector.

The cameras support two aspect ratios, 4:3, the original motion picture film format and 16:9, or widescreen format in three resolutions: 752 X 416, 1024 X 768 and 1920 X 1080 pixels.

Each of the three resolutions is shown at the top of the next page in scaled ratios and with equal pixel density. The higher the pixel density, the sharper the picture when all pictures are viewed at the same size.

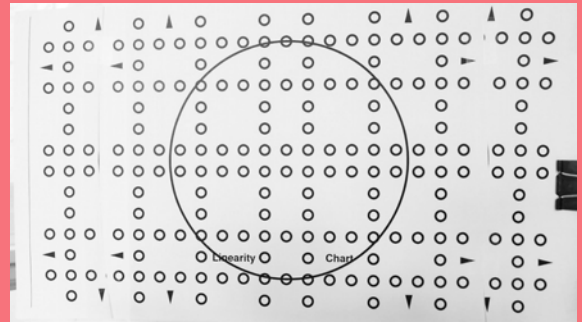
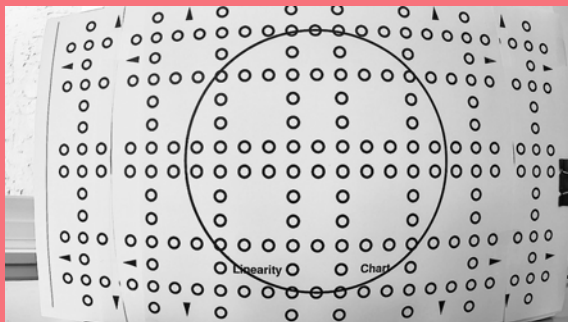
The C920 includes autofocus. The C310 has a fixed focus lens optimized for a subject close to the camera. This camera would not give a sharp image for objects far away from the camera. The Aluratek and UCK cameras both have a manually adjustable focus ring to allow the focus to be adjusted for any distance from close-in to infinity.



Images scaled by resolution for comparison.

The image quality ranges from the laptop, which is the worst, to the Logitech webcams reproducing the colors most accurately. The Aluretek and UCK camera images, not shown, tend to over-emphasize color intensity and artificially sharpen the image.

Both the Aluretek and UCK cameras have a wide field of view with some geometric distortion.

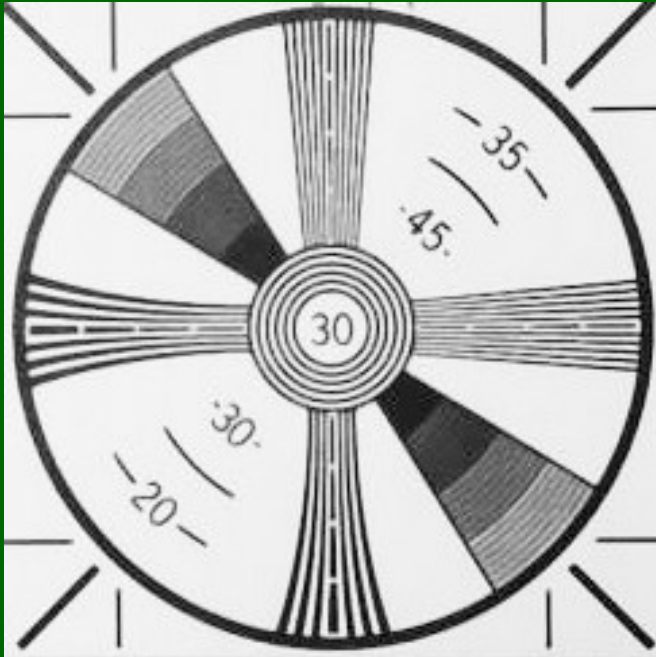


Barrel distortion tests.

A significant amount of barrel distortion present in the Aluretek and UCK cameras, seen in the image to the left. The other cameras have no significant geometric distortion.

The RCA Indian Head resolution pattern is used to evaluate the resolution of the camera. The left image below is a detail of the center of the resolution pattern from the C310, the other from the C920.

The more pixels generated in the camera, the better the quality of the image. The Logitech C310 image on the left below, with a resolution of 752 X 416 pixels, similar as found on a DVD. The C920 on the right produces a true hi-def image with its 1920 X 1080 pixel resolution.



Center portion of Indian Head image for the Logitech C310.



Center portion of Indian Head image for the Logitech C920.



Full Indian Head image.

The Logitech C920 with a 1920 X 1080 pixel resolution is the best of the lot and is an excellent camera for generating YouTube content. The auto-focus and exposure compensation are enabled by default.

The video capture software I use provides a large variety of video effects, but I would rather generate plain video and introduce effects in post-production using the video editor. My video capture program has a 150 millisecond latency (audio precedes video by 0.15 sec), so I must slide the audio portion back by 150 msec in the editor to lip-sync the video. You may want to use a “clapperboard” to synchronize the audio if you have the same latency problem.

Lighting and Camera Position

Once you get your camera set up, don't waste its capability with poor lighting. There are many YouTube tutorials describing lighting setup, but they all agree to using side lights on the face, along with a light directly behind the camera to illuminate the face. If the direct light is too strong, however, the contours of the face tend to get flattened.

Avoid a bright light behind you in the view of the camera. The camera will darken your face.

If the webcam is clipped to the top of your laptop, elevate the laptop up on a box or a pile of books unless you want your viewers to be looking up your nose.

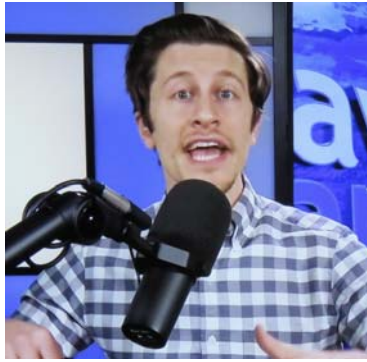
The essence of zoom is eye-to-eye contact. If you do not have your camera on top or near your viewing screen, then eye-to-eye contact is lost. You will be seen as looking off into space by your viewers, losing a powerful benefit of zoom for

relating personally with your viewers. Would you avoid eye-to-eye contact sitting with a friend at a restaurant? With social distancing imposed on us because of COVID, zoom is one way of maintaining close contact with friends.

Sound

Did you ever wonder why these pundits sit behind these gigantic microphones?

Maybe it's to give them a feeling of importance or wisdom. David Pakman (left) behind his Shure SM-7B, and Rush Limbaugh (right) behind his gold-plated Electro-Voice RE-20. When they wave their arms, they hit the equipment.



How about a lapel mic? That's what the "real" TV folks use on the air. I tried a big mic for a short time myself. I don't think it made anything I said seem more important anyway.



Trying large microphones.

But it did have problems. The Shure microphone was hard to avoid running into. Worse still, it is not very directional and picked up a lot of room echo. It needed equalization to sound decent in my small room environment.

So that experiment was over.

Most Zoomers just default to the microphone in their laptop computer, which suffers from room echo unless the speaker is gifted with an exceptionally acoustically damped environment. The microphones in the webcams sound just the same as the microphones in the laptops, as none of them have any directionality. The

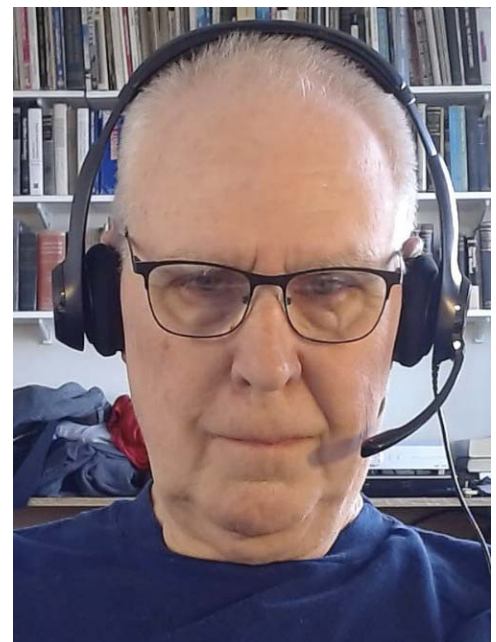
Logitech C920 has a stereo microphone, but zoom only transmits monaural audio.

I found two inexpensive solutions that result in clean sounding, room-echo-free audio.

The first solution is to use a headset with a built-in microphone. This one shown is the Logitech H390, which can be had for less than \$30. The audio from the microphone lacks bass, but is clear and crisp. The headphones are better than I expected, with a full frequency response, including strong bass, for playing back music. The headset is comfortable to wear for long periods with its cushioned earpads.

The second solution to good sounding audio is to use a lapel or lavalier microphone.

This one clipped on me (see photo on next page) is an Audio-Technica ATR3350, also less than \$30. It's an electret microphone that includes a battery pod in the cord. I have used it for YouTube videos I have produced. You can hear it, for example, in the RCA Chime Machine video, expertly narrated by John Stuart.



First solution using a headset with earphones and microphone.



Second solution using a lavalier microphone clipped to my shirt.

I compared the lavalier microphone to my Shure 664, which is a full-fidelity microphone optimized for public-address use. The 664 has very little pickup from the sides or rear to minimize feedback in a PA setting, as well as effectively reducing echo in a lively room.

The comparison of the lavalier microphone to the Shure 664 showed that they sound identical in every way, with a full rich sound, more pleasant than the thinner but crisp sound from the Logitech H390 headset. The lavalier mic moves with me when I move, so there is no drop-out from moving away from a fixed microphone. There was no room echo evident.



Lapel or lavalier microphone.

The laptop I use for zoom, a Dell Latitude E6510, has a very noisy microphone input amplifier. So I use a separate microphone preamplifier

and equalizer with either the Shure 664 or the Audio-Technica lavalier mic to feed a higher level signal to the laptop, overcoming the deficiencies of its microphone input. I would hope that your computer has a better mic amplifier than mine. You can use the sound recorder feature of your computer to test the audio quality of an external microphone.

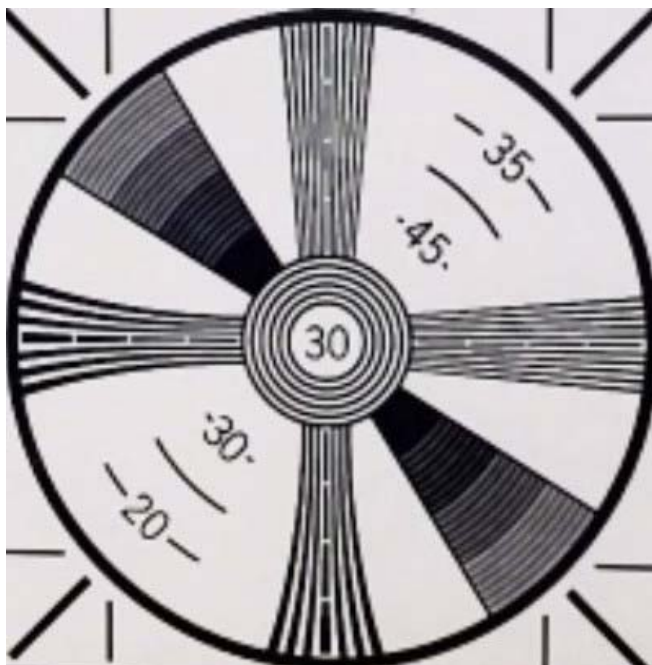
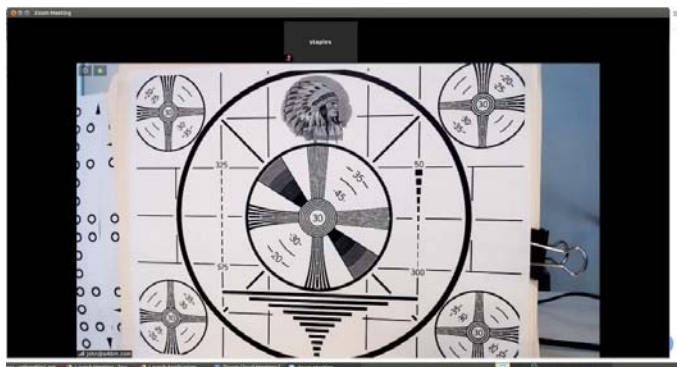
Speaker or Headset?

Zoom automatically levels the microphone gain and includes echo canceling from your loudspeaker back into the microphone. If you are using a headset, headphones or earbuds, the incoming audio will not be heard by the microphone. Zoom activates the audio channel the one speaker who is active at a time and mutes the others. While using a loudspeaker, however, the zoom audio algorithm will have to cope with the incoming audio feedback into the microphone and may result in interrupting all audio.

So if you are using a loudspeaker, keep its audio level as low as possible and keep it away from the microphone.

The Zoom Transmission Channel

So how does your very carefully-tailored video look at the other end? Here, the Indian Head test pattern is imaged using a resolution of 1920 X 1080 and sent to another computer. At least 350 lines of resolution can be seen, equivalent to a good quality standard NTSC TV image.



Bottom Line

The Logitech C920 camera is the best of the lot, as it produces a sharp image with good skin tone without needing strong light. It's in great demand right now because of COVID, so be patient in finding one. The Aluratek and the UCK push the color saturation and artificially enhance edge boundaries. Their wide-angle lens has a significant geometric barrel distortion. The zoom tab "touch up my appearance" seems to just soften the image, which may compensate for the edge enhancement. The Logitech C310 has slightly muted colors, lesser resolution, and a fix-focus lens that is not useful for distant objects while producing YouTube videos. And my Dell laptop camera is hopeless.

The Logitech H390 headset with attached microphone is the easiest to set up and use. With a little more effort, the lav mic produces fuller sounding audio. The Logitech C920 would make a good camera to generate a YouTube presentation.

So if the next time you may appear on national television for an interview for your in-depth and important knowledge, you would be prepared. Or, maybe you will look good for your next job interview or meeting again with your old high school friends with a nicely-configured zoom setup. Put a little effort into good lighting so you will look your best.



Above are the Aluratek model AWC03F, the Logitech C310, the Logitech C920 and the UCK webcams.

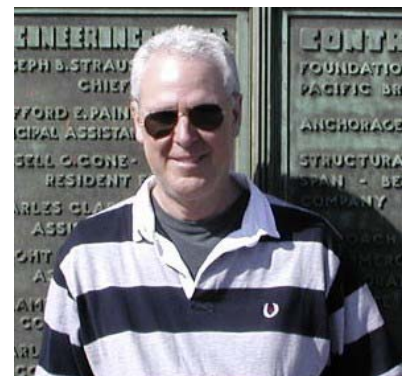
Factoid: (with a question) I noticed that the Aluratek and the UCK seemed to have a constant red light emerging from the center of the lens no matter what the ambient light is. It turned out that the aspheric lens captures any room light and sends it back from the center of the lens.



So I wondered: why do movie monsters also seem to have luminescent red eyes? Wouldn't that interfere with their vision?

The Author

John Staples is highly visually-oriented and doesn't answer the telephone because he can't see the caller. During these days of COVID-19 the ability to add face-to-face communications has kept him reasonably sane.



1999: A Quest for a Gates Console

By Stephen Barncard

The freeway between Dallas and northern Texas has no towns of any size to drive through along the way, only giant truck-friendly gas-food stops, with porn shops across the lot in the same complex. No trees or foliage of any kind except sagebrush and dust devils that break up the totally flat landscape with few other distinguishing features. For 5 hours, I drove through this bleak landscape on my way to Wichita Falls, TX.



That gives me a lot of time to think about why the hell am I in the middle of Texas with a 12 hour turnaround chasing after a silly old broadcast console.

Well, that's not too hard to explain. It's the *sound* of that console. And I'm probably getting the last one on earth in any decent condition.

This year I've become a gear hound big time. I'm headed to the legendary Nesman Studios, a studio that has been in business since 1947 – nearly a decade before the rise of the independent studios in Hollywood like Sunset or United-Western. Here I am going to inspect and prepare for shipping a 1956 Gates Dualux Broadcast console, the likes of which I've used decades ago, and for some reason in December of 1999, I purchased one, sight unseen.

My Gates story goes back to the early 60's when I was finally able to get a position in a real radio station. This was after many childhood years "playing radio" with a milliwatt transmitter and turntables in my basement, a scenario not unlike the childhoods of others that have been involved in broadcasting.

My first pro job was at the independent KCJC-FM, Merriam Kansas. FM Stereo was the *next big thing*, and they had been one of the first stations in the country to use the compatible stereo format, and prided themselves on the technical quality of the broadcasts. Audio Empire turntables (with the magnetic arm

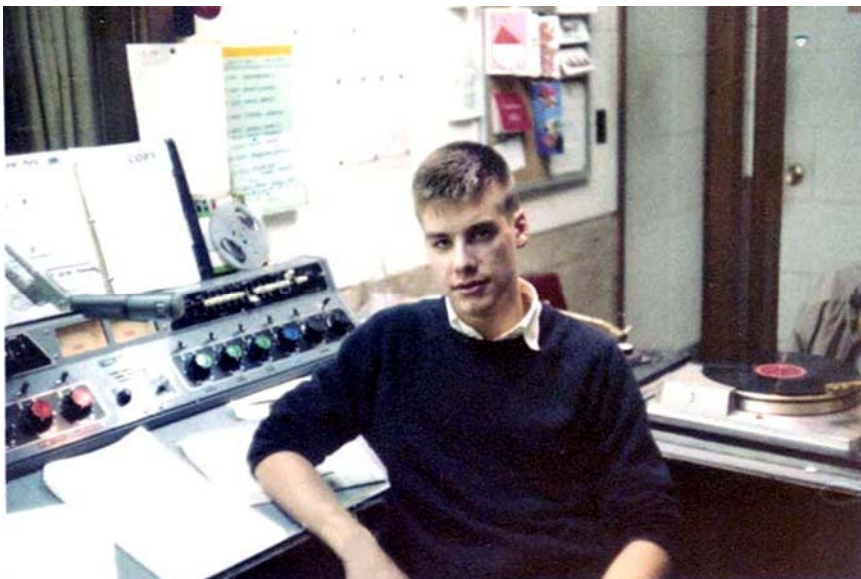


I always wanted to be on radio.

securer) with EICO tube turntable preamps. And that GATES console to route it all. They had a strong on-air carrier and audio quality.

At first I would read the news for the 12-2am shift on Saturday, as I had befriended a dentist-stockholder-DJ (Jack Loudon) in the station who let me hang out for hours. After a while Jack decided he'd had enough of the late night thing, so I inherited the show, and for two years got to be the host on "Night Flight Jazz". I also got to do fill-in work on holidays,

Christmas was great – my family and I would celebrate the night before, I'd get up at 5am on Christmas, drive to the station and sign on the Gates Transmitter. First the heaters, then the plate voltage, then tweak the grid and plate voltages. Then I'd do an 8 hour "combo" shift until another weekender would come in. Got to miss church and everything.



While at KCJC-FM.

A pretty cool job when you're 15.5 years old. (The .5 is significant as 15.5 is the minimum age to drive in Kansas, an agricultural state.) It was also cool to have a father (R. G. Barncard, Long Lines Pioneer) that not only approved of my radio activities, but encouraged and enabled me as well. He even filled in for me one night spinning records and doing breaks on the Gates while I lay sick with the flu in the other room.



The Gates Console.

I remember getting the manuals for the console out of the of the tech room and reading the schematics. I loved the sound of the preamps – clean, responsive, realistic, made even more clear by their use of a control room mic that I knew well. The EV 665 was the 'pro' cousin of the PA mic the EV 664, of which I owned 4 at the time for my recording studio in my parents' basement. One big question that I still have today is how they modified the console to use the three stereo pots to the passive low impedance mixing circuit. As I have mentioned, the console was not originally designed for stereo, it was dual.

I was with the station for 2 or 3 years, and one time I came to work and there was this bearded guy with long hair and sandals. He spoke with a Shakespearean drawl and claimed he was an actor. He had talked the remaining two stockholders, Ruben and Ethel Sell, into letting him run the station in a new way.

This was an odd partnership, because here was this ‘beatnik’ character doing business with who I knew to be two of the straightest, most uptight people I had ever met. His deal was to include his providing Spotmaster cart machines for commercials as we had been playing reel-to-reels before that.

Since the old tech had left the station, I was enlisted to attach the machines to the console, and it wasn’t hard to find the entry points. I got my first look inside the console at this time. The deal between the owners and the beatnik was over in a few weeks and the Spotmasters disappeared. Back to racking reel to reel tape.

The Gates DUALUX console was a huge problem solver for independent radio stations in the late 50’s. Many stations needed a console that was DUAL, not stereo, as these stations were AM’ers with companion FM frequencies that simulcast part of the time, and sometime not, choosing automated feeds, networks, or other control rooms. The Gates was input choice overkill, 1956 style.

One could have up to 7 mic preamp trays, which would be perfect for a news organization (or a recording studio, in the case of Nesman Studios). The matrix of several high quality Switchcraft ‘top hat’ lever switches could bring in a plethora of network or remote sources into the console without patching.

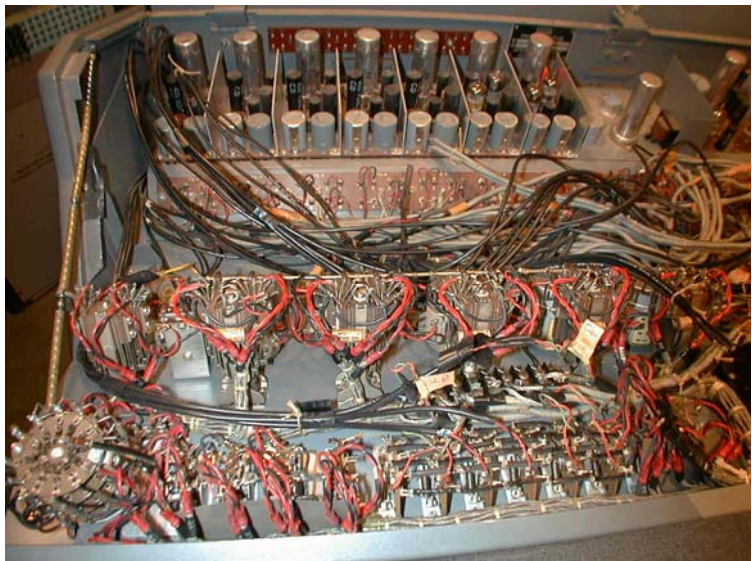
The middle section was a multi-purpose cue amplifier and intercom. ‘Crack’ the turntable and aux pots to zero and the audio of that channel emits from the speaker in the middle (or through the cue headphone jack).

The cue could not only be used as a talkback/intercom in the other studio rooms, but could also return audio back over connected phone lines for remote cues. The front panel swung down for easy access, while staying live. Multiple turntables and tape machines could be switched among the 4 aux-turntable inputs. The electronic design was excellent and smartly executed.

Some may argue that low-impedance balance mixing circuits are archaic, sonically inferior, and require elaborate switching networks to add or subtract inputs to the bus. There is a method to their madness; the console has to operate in a possible environment of large RF fields as many radio stations have their main



The Gates console switches.



The Gates console switch wiring.



The Gates console switch meters.

console at the transmitter location. Daven balanced pots and UTC transformers were used everywhere, and some of the best VU meters money could buy. Finally, the package also included a rack mounted power supply that also included a useable monitor power amplifier. The console was encased in a hinged steel cabinet with wooden ends with rounded corners.

A succession of radio station jobs had followed into the middle 60s. At KUDL, a 'BOSS-RADIO' format rock station in Lenexa, KS (Kansas City market), I ended up with a highly desirable combo position on weekends during my last high school year and first year of college.

I had always worked from the transmitter location, where the console was a Gates Yard. One summer I was designated the Program Director while the regular PD went on vacation, and had to work out of the downtown studio and discovered the console there was, yep, you guessed it, yet another DualLux console.

The next few years I bounced between playing in bands and working at various radio stations in KC. In 1969 music and taste changed radically. The old KCJC I knew from my past had been sold to KUDL, and its transmitter and console moved to the transmitter site in Lenexa. KUDL did not have an FM radio outlet until the KCJC purchase. As they were located in a major market and the content rules necessitated separate programming. At the same time, FM radio did not have the penetration that it does today, most cars still didn't have FM receivers, and the airtime wasn't worth much to most advertisers.

And that's how 'Underground Radio' started in San Francisco at KMPX in 1967, and by 1969 KCJC-FM started working with the format. The main reason for the owners to keep the frequency was for the sub-carrier, which was used for distributing background music to Safeway stores, but that also meant we could play any music we wanted as long as it wasn't profane. The downside was that the station was badly maintained, the stereo generator was out of commission, and the single tape machine was saturated with RF.

Compare the console's condition in the color photo of young Barncard on page 31 to the black and white photos on this page showing the condition it was in by 1969. (Please excuse the attitude of the Barncard above.) This is the same console. Those were hard years with many DJs wearing away the paint and smoking thousands of cigarettes. One could only imagine what shape that console would be in today, and as it was a tube board, probably thrown into the dumpster in most cases, as the new solid state boards started to proliferate. To me, the solid state Gates never sounded anywhere near as good.

After 7 years of being a radio guy and 6 months in this dump of a station, I started to grow restless, wanted to make records instead of spinning them, and set forth on the next great stage of the adventure of my life.

Fast forward 30 years and I'm living in Santa Rosa, still in the music business, but working out of my home. For no odd reason I still yearned to find a broadcast tube console, either a Gates or an RCA. I had plans to do some multi-track recording with it, using it for mic preamps, but nothing certain. I just **had** to have one.



A little later at KCJC-FM.



The Gates console at KCJC-FM.

At long last after combing broadcast equipment catalogs and several email lists, someone on the Ampex list sent me a message notifying me that there's a studio in Texas that was closing down, and they may have a DualLux.

A quick call to Texas confirmed that. I talked to Sally Nesman, of the husband and wife recording team of Nesman Recording, Wichita Falls, Texas. I wrote a check on the spot and sent it off to Sally.

About 6 months later a Christmas trip to see the folks in Alabama opened up a way to see the thing I'd bought and arrange for transport. So here I am, on the way at last.

Editors Note:

Nesman Studios

Sally and Lewis Nesman started Nesman Studios in 1947 in Biloxi, Mississippi. They moved the studio to Wichita Falls, Texas in 1949. In 1952, they bought the studio in the photo where they operated until into the 1990s. This studio was also their residence. Lewis was the engineer and Sally ran the studio.

Buddy Holly came to Nesman Studios and performed live to record four acetates which were sent to Decca resulting in a short-lived recording contract. Since the Gates console appears to have been first installed at Nesman Studios in 1958, it was not used at the Buddy Holly session. Others who recorded at Nesman Studios over the years include Lew Williams, Slim Whitman, Bill Mack, and the Sprague Brothers.



Sally and Lewis Nesman (center) with the Sprague Brothers.
(photo by Jim Caviness) Source: Rockin 50's / June '90



Lewis Nesman. (photo by Jim Caviness) Source: Rockin 50's / June '90

I arrived just about sundown. Sally greeted me warmly, and she had this wonderful southern girl charm that reminded me of my mother, and she was about the same age.

I said hi to Louis, but he'd had a stroke and thus could not speak. I didn't have much time to spare so we went directly to the studio. There it was, in situ since 1958, the Gates DualLUX. Louie had cared for it well. There were all kinds of ancient signs taped to the walls informing everyone that this was a smoke-free studio, and his equipment showed it. I got a quick tour of the studio. Quite a large space with a 12 foot ceiling, and five or six microphone stands.

As I started cutting the wires out of the terminal block inside the console to remove it, I saw Louis staring at me from the doorway, silently. It must have been depressing to see his studio desecrated like that. I took the console, stand, and power supply out and set them out on the floor of the studio so a crating company could come and pack it up.

Sally had ordered some dinner from Olive Garden and we had some conversation about how they got started in the studio business in 1947 in Biloxi Miss. and eventually ended up in Wichita Falls. Their business took off and did well for many years.

I really enjoyed my visit with Sally and had planned to make a second trip to see her again but sadly she passed away in 2014.

Several years ago I donated the Gates console to the California Historical Radio Society when museum was located in Berkeley, CA. in the former studio building of radio station KRE. You can see it in the background of the photo right.



Sally Nesman and me.



Steve Kushman explaining the Gates Console during a video tour of the museum.

Editors Note:

The Gates Console is now installed as the central focal point in the CHRS Broadcast Studio exhibit in the Radio Central museum in Alameda. Through the efforts of John Staples and John Stuart, the Gates console is fully functional and has been wired to all of the equipment in the room. Now the Broadcast Studio can be used to demonstrate how a radio or recording studio would have operated in the 1950's and 1960's, plus providing electronic transcription of historic recordings.





KPO Speech Amplifier Equipment in 1925